CLAIMS

What is claimed is:

1. An *ex vivo* method of measuring the level of immune activation and immunosuppression in an individual having, or suspected of having, a T helper 1 (Th1)-associated condition, said method comprising the steps of:

providing an individual having, or suspected of having, a Th1-associated condition;

collecting a blood sample including white blood cells (WBC) from said individual;

adding a pro-inflammatory stimulant to said sample;

incubating said sample with said stimulant; and

assaying in said stimulated sample the extent of release of a pro-inflammatory substance from said WBCs, wherein the extent of release of said pro-inflammatory substance in response to said pro-inflammatory stimulant is indicative of the level of immunologic activity and/or immunosuppression in said individual.

2. The method of claim 1, wherein said Th1-associated condition is selected from the group consisting of Crohn's Disease, psoriasis, rheumatoid arthritis, Systemic Lupus Erythematosus (SLE), multiple sclerosis and solid organ transplant rejection.

3. The method of claim 1, wherein said pro-inflammatory stimulant is interferon-gamma, tumor necrosis factor-alpha, an interleukin or a combination thereof.

4. The method of claim 1, wherein said pro-inflammatory substance is a chemotactic cytokine.

5. The method of claim 4, wherein said chemotactic cytokine is selected from the group consisting of CXCL9(MIG), CXCL10(IP-10,IP10) and CXCL11 (ITAC,I-TAC).

6. The method of claim 1, wherein said pro-inflammatory stimulant is a bacterial-associated lipid or polysaccharide.

7. The method of claim 6, wherein said pro-inflammatory stimulant is selected from the group consisting of lipopolysaccharide, lipotechoic acid, peptidoglycan and subunits or components thereof.

8. The method of claim 1, wherein the extent of release of said pro-inflammatory substance is assayed by a method selected from the group consisting of antibody derived serologic measurement of said pro-inflammatory substance; PCR methodology measurement of messenger RNA levels for said pro-inflammatory substance; protein chip assay quantification of said pro-inflammatory substance; measurement of intracellular production of said pro-inflammatory substance by cells using flow cytometric analysis; binding and release measurement of said pro-inflammatory substance; and measurement of a metabolic product of said pro-inflammatory substance.

9. The method of claim 1, wherein the extent of release of said pro-inflammatory substance is assayed by antibody derived serologic measurement.

10. A kit for *ex vivo* measurement of the level of immunosuppression in an individual having, or suspected of having, a T helper 1 (Th1)-associated condition, said kit comprising:

a pro-inflammatory stimulant associated with said T helper 1 (Th1)-associated condition; and

instructions for carrying out the method of claim 1 for an individual having, or suspected of having, said condition.

11. The kit of claim 10, wherein said pro-inflammatory stimulant is interferon-gamma, tumor necrosis factor-alpha, an interleukin or a combination thereof.

12. The kit of claim 10, wherein said pro-inflammatory stimulant is a bacterial-associated lipid or polysaccharide.

13. The method of claim 12, wherein said pro-inflammatory stimulant is selected from the group consisting of lipopolysaccharide, lipotechoic acid, peptidoglycan and subunits or components thereof.

14. The kit of claim 10, wherein said Th1-associated condition is selected from the group consisting of Crohn's Disease, psoriasis, rheumatoid arthritis, Systemic Lupus Erythematosus (SLE), multiple sclerosis and solid organ transplant rejection.